

2003
EMERGENCY MEDICAL SERVICES AGENCY
PEDIATRIC MEDICAL CENTER STANDARDS

INTRODUCTION:

These standards were developed in an effort to promote a higher level of care for critically ill pediatric patients within Los Angeles County. The goal of the Los Angeles County Emergency Medical Services (EMS) Agency is to transport 9-1-1 patients to the right facility the first time. The Pediatric Medical Center facilities will provide an emergency department capable of managing complex pediatric emergencies, a Pediatric Intensive Care Unit (PICU), physicians with pediatric sub-specialties and/or experience in pediatric care, pediatric critical care consultation for community hospitals, and outreach educational programs for the EMS community.

The Emergency Department Approved for Pediatrics (EDAP) and the California EMS Authority's Guidelines for Pediatric Critical Care Centers have been incorporated into the Pediatric Medical Center Standards.

The Pediatric Medical Center Standards have been approved by The Health Care Association of Southern California and meet or exceed Emergency Medical Services for Children (EMSC) administration, personnel, and policy guidelines for the care of pediatric patients in the emergency department set forth by the California Emergency Medical Services Authority in 1995.

ACKNOWLEDGMENTS:

The Pediatric Medical Center Task Force Committee and the Committee on Pediatric Emergency Medicine (COPEM) made significant contributions in the development of the Pediatric Medical Center Standards. The Pediatric Medical Center Task Force Committee was comprised of the following: Board Certified Physicians in Emergency Medicine, Neonatology, and Pediatric Critical Care, and nurses with experience in emergency medicine and pediatric critical care. COPEM membership consists of representatives from the following organizations: Los Angeles County Pediatric Society, Pediatric Liaison Nurses of Los Angeles County, California Chapter of the American College of Emergency Physicians, National Emergency Medical Services for Children (EMSC) Resource Alliance, California Chapter 2 of the American Academy of Pediatrics, Emergency Nurses Association, and the Los Angeles County Department of Health Services EMS Agency.

DEFINITIONS:

Center of Excellence: A center specializing in child abuse and neglect cases, consisting of a knowledgeable staff whose training, expertise, and state-of-the-art equipment exceeds the community standards.

DCFS: Department of Children and Family Services

EDAP: Emergency Department Approved for Pediatrics.

ENPC: Emergency Nurses Association-Emergency Nursing Pediatric Course.

Immediately available: Unencumbered by conflicting duties or responsibilities, responding without delay when notified, and being physically available to the specified area of the PMC.

Pediatric Medical Center (PMC): A licensed acute care hospital that is approved by the County of Los Angeles to receive critically ill pediatric patients from the 9-1-1 system.

On call: Agreeing to be available, according to a predetermined schedule, to respond to the PMC in order to provide a defined service.

PALS: Pediatric Advanced Life Support course sponsored by the American Heart Association.

Pediatric Experience: A surgical or non-surgical physician specialty approved by the appropriate hospital body and the PMC Medical Director based on education, training, and experience to provide care to the pediatric patient. This approval process shall be defined and monitored by the PMC Medical Director and approved by the local EMS Agency.

Promptly available: Responding without delay when notified and if the presence of the physician is requested, he/she shall be physically available to the specified area of the PMC within thirty (30) minutes.

Qualified Specialist: A physician licensed in the State of California who is board certified in a specialty by the American Board of Medical Specialties (ABMS), the Advisory Board for Osteopathic Specialties, a Canadian Board or other appropriate foreign specialty Board as determined by the ABMS for that specialty.

Senior Resident: A physician licensed in the State of California who has completed at least two years of the residency under consideration and has the capability of initiating treatment and who is in training as a member of the residency program at the designated PMC.

Two-day Pediatric Emergency Nursing Course: A fourteen hour broad spectrum course that should include the following pediatric emergency topics: resuscitation, trauma, medical conditions, near drowning, respiratory distress, ingestion, child abuse and neglect, fever, seizures and neonatal emergencies.

I. GENERAL REQUIREMENTS FOR THE HOSPITAL:

- A. Licensed by the State Department of Health Services as a general acute care hospital.
- B. Be accredited by the Joint Commission on Accreditation of Healthcare Organization (JACHO).

- C. Have a special permit for Basic or Comprehensive Emergency Medical Service pursuant to the provisions of Title 22, Division 5, California Code of Regulations.
- D. Meet or exceed the County of Los Angeles Standards for Emergency Department approved for Pediatrics (EDAP).
- E. Have a designated pediatric ward licensed by the State Department of Health Services pursuant to the provisions of Title 22, Division 5, California Code of Regulations for facilities that have greater than 7 beds on the ward.
- F. Have an intensive care unit licensed by the State Department of Health Services pursuant to the provisions of Title 22, Division 5, California Code of Regulations utilized solely for pediatric patients.

II. HOSPITAL ORGANIZATION:

- A. A Multidisciplinary Pediatric Critical Care Center Committee
 - 1. The committee shall include interdepartmental and multidisciplinary representatives from prehospital care, emergency department, pediatric critical care, pediatrics, pediatric sub-specialties, nursing, social services, respiratory services, discharge planning, pediatric interfacility transport team, SCAN team, and other relevant services.
 - 2. Responsibilities of the PMC Committee:
 - a. Monitor and ensure the compliance of the PMC standards.
 - b. Monitor and ensure the compliance of coordination of the pediatric critical care services across departmental and disciplinary lines.
 - c. Monitor and ensure that a thorough multidisciplinary case review is conducted on all incidences of child abuse and neglect. Case reviews should include representatives from law enforcement, Department of Children and Family Services (DCFS), district attorneys, and prehospital care providers and medical experts when appropriate.
 - d. Ensure the development and implementation of the policies and procedures listed on page 11, Section XIII.
 - e. Monitor and ensure a comprehensive, multidisciplinary quality improvement (QI) program.
 - f. The PMC Committee should meet, at minimum, on a quarterly basis or more frequently as needed, to review

system-related performance issues. The minutes from the meetings shall reflect the review, including, when appropriate, the analysis and proposed corrective actions. The committee members or a designee shall be obligated to attend at least 50% of the meetings.

III. ADMINISTRATION/COORDINATION:

A. PMC Medical Director

1. Qualifications:

- a. *Qualified specialist* in pediatric critical care medicine or
- b. *Qualified specialist* in pediatric emergency medicine.

2. Responsibilities:

- a. Implement and ensure compliance with the PMC Standards.
- b. Serve as chairperson of the PMC Committee or assign a designee.
- c. Coordinate medical care across departmental and multidisciplinary committees.
- d. Maintain direct involvement in the development, implementation, and maintenance of a comprehensive multidisciplinary QI program.
- e. Identify, review, and correct deficiencies in the delivery of pediatric critical care.
- f. Review, approve, and assist in the development of transfer guidelines and all PMC policies and procedures.
- g. Shall have direct involvement in defining and monitoring the credentialing criteria/process utilized in determining pediatric experience for the non-boarded physicians.
- h. Ensure appropriate pediatric critical care education programs are provided to the staff.
- i. Ensures the implementation of the SCAN Team.
- j. Liaison with other PMCs, base hospitals, community hospitals and prehospital care providers.
- k. Serve as a contact person for the EMS Agency.

3. A written document defining the authority and responsibilities of the PMC Medical Director shall exist.
- B. PMC Nurse Coordinator
1. Qualifications:
 - a. Registered nurse licensed by the State of California.
 - b. Current PALS provider.
 - c. Shall have experience in the care of critically ill children.
 - d. Completion of an ENPC or two-day pediatric emergency-nursing course (within the last 4 years).
 - e. The PMC Nurse Coordinator may hold other positions in the hospital organization i.e. PdLN, PICU Nurse Manager, and/or ED Nurse Manager.
 2. Responsibilities:
 - a. Ensure the implementation and compliance of the PMC Standards in collaboration with the PMC Medical Director.
 - b. Serve as a member of PMC Committee.
 - c. Maintain direct involvement in the development, implementation, and maintenance of comprehensive multidisciplinary QI program.
 - d. Coordinate pediatric critical care nursing across departmental and multidisciplinary lines.
 - e. Ensure appropriate pediatric critical care education programs are provided to the staff.
 - f. Liaison with other PMCs, base hospitals, community hospitals, and prehospital care providers.
 - g. Serve as the contact person for the EMS Agency.
 - h. Notify the EMS Agency in writing when there is a personnel change of the PMC Medical Director or PMC Coordinator.
 3. A written document defining responsibilities of the PMC Coordinator shall exist.

IV GENERAL STAFFING REQUIREMENTS:

- A. Emergency Medicine staff shall be in-house and ***immediately available*** at all times
 - 1. Physician's qualifications:
 - a. *Qualified specialist* in emergency medicine or
 - b. *Qualified specialist* in pediatric emergency medicine.
 - 2. Qualifications/Education for nurses:
 - a. A registered nurse licensed by the State of California.
 - b. Current PALS provider.
 - c. Complete a two-day pediatric emergency-nursing course (within the last 4 years).
 - d. Complete 8 hours of pediatric BRN approved education every two years (hours can be applied from attending the 2-day course).
- B. Pediatric Intensivist shall be ***promptly available***
 - 1. Qualifications:
 - a. *Qualified specialist* in pediatric critical care medicine
 - b. Shall not be on-call for more than one facility at the same time.
 - 2. Responsibilities:
 - a. Participate in all major therapeutic decisions and interventions.
- C. Anesthesiologist shall be ***on-call*** if Section IV. D service is available /***promptly available*** if Section IV. D service is not provided.
 - 1. Qualifications:
 - a. *Qualified specialist* in anesthesiology with pediatric experience.
 - 2. Responsibilities:
 - a. Advised about patients requiring interventions by the senior resident or CRNA and be present for all operations.

- D. A Senior Resident or Certified Registered Nurse Anesthetist (CRNA) shall be ***promptly available***.
 - 1. Qualifications:
 - a. Must have pediatric experience
 - b. Under the direct supervision of the staff anesthesiologist with pediatric experience.
- E. The following services will be on-call and ***promptly available***:
 - 1. Radiologist (can be achieved by off-site capabilities)
 - 2. Neonatologist
 - 3. Pediatric Cardiologist
 - 4. General Surgeon with pediatric experience
 - 5. Otolaryngologist with pediatric experience
- F. Available for **consultation** and/or through a **transfer** agreement, qualified specialists with pediatric experience:
 - 1. Gastroenterologist
 - 2. Hematologist/Oncologist
 - 3. Infectious Disease
 - 4. Nephrologists
 - 5. Neurologist
 - 6. Obstetrics/Gynecologist
 - 7. Pediatric Surgeon

V. EQUIPMENT, SUPPLIES AND MEDICATIONS:

Pediatric equipment, supplies, and medications shall be easily accessible, labeled, and logically organized. The emergency department shall have a policy, which requires daily verification of the proper location and functioning of pediatric equipment and supplies. Additionally, the policy shall specify that the staff will be appropriately educated as to the function and location of all items.
(Attachment A)

VI. PEDIATRIC INTENSIVE CARE UNIT:

A. General Requirements for the PICU

1. Shall be a distinct, separate unit within the hospital.
2. Minimum of four beds within the designated PICU.
3. At minimum, there shall be 200 admissions a year to the PICU with 50 of these patients requiring mechanical ventilation.
4. There shall be an identified PICU RCP available in-house twenty-four hours a day.
5. A written document defining roles and responsibilities of the PICU Staff shall exist.

B. PICU Medical Director

1. Qualifications:
 - a. *Qualified specialist* in pediatric critical care medicine.
2. Responsibilities:
 - a. Serve as a member of the PMC Committee.
 - b. Oversee the multidisciplinary medical direction of patients in the PICU.
 - c. Monitor with the PICU Nurse Manager, the development and review of policies, procedures, and QI activities involving the PICU.
 - d. Identify educational needs and facilitate education for the medical staff in the PICU.
 - e. Ensure that the care of the patients in the PICU is under the direct supervision of the PICU Medical Director or pediatric intensivist designee and/or the attending physician in consultation with the pediatric intensivist.
 - f. Ensure that a qualified specialist in Pediatric Critical Care Medicine is on call to the PICU on a twenty-four hour basis and promptly available to the PICU.
 - g. Ensure that the on-call pediatric intensivist is notified of all potential and actual admissions to the PICU in a timely manner.

C. PICU Nurse Manager

1. Qualifications:

- a. Registered nurse licensed by the State of California.
- b. Current PALS provider.
- c. Experience in pediatric critical care nursing.

2. Responsibilities:

- a. Serve as a member of the PMC committee.
- b. Ensure coordination of care in the PICU across departmental and multidisciplinary lines.
- c. Maintain joint responsibility with the Clinical Nurse Specialist to ensure that appropriate education programs are provided to the nursing staff.
- d. Collaborate with the PMC Coordinator on QI activities.
- e. Maintain joint responsibility with the PICU Medical Director for the development and review of policies, procedures and QI activities in the PICU.

D. PICU Clinical Nurse Specialist (CNS)/Clinical Educator

1. Qualifications:

- a. Registered nurse licensed by the State of California.
- b. Bachelor's prepared, Master preferred.
- c. Current PALS provider.
- d. Shall have at least 2 years of experience in pediatric critical care nursing.

2. Responsibilities:

- a. Ensure current competency of the clinical skills for the nursing staff in the PICU.
- b. Participate in consultation, research, and education as it relates to the care of critically ill pediatric patients.

- c. Collaborate with the nurse manager, administration, physicians, and nursing staff in establishing standards of care in the PICU.
 - d. Develop and oversee critical care educational programs for the nursing staff in the PICU.
 - e. Maintain joint responsibility with the nurse manager for documenting and assuring PICU nursing staff competency in the management of patient care in the PICU.
 - f. Oversee provision of educational needs of parents and/or caretakers.
- E. PICU Registered Nurses
 - 1. Registered nurse licensed by the State of California,
 - 2. Current PALS provider.
 - 3. Shall have education, training and demonstrated competency in pediatric critical care nursing.
- F. Licensed Vocational Nurses (LVN)
 - 1. LVN licensed by the State of California,
 - 2. Current PALS provider.
 - 3. Must have education, training and demonstrated competency in pediatric critical care nursing.
 - 4. There shall be no more than one LVN for every three RNs assigned to provide direct nursing care in the PICU.
 - 5. LVNs may provide nursing care for patients in the PICU under the direction of the assigned RN.
- G. Respiratory Care Practitioner (RCP)
 - 1. RCP licensed by the State of California.
 - 2. Current PALS provider.
 - 3. Successfully completed additional training in pediatric critical care.
- H. Social Worker
 - 1. Must be a Master's Prepared Medical Social Worker (MSW).

2. Experience in psychosocial issues affecting seriously ill children and their families.
 3. Shall have experience in management of child abuse and neglect cases.
- I. Other professional services with pediatric experience shall be available to the PICU:
1. Pharmacist
 2. Clinical Registered Dietician
 3. Occupational Therapist
 4. Physical Therapist
- J. PICU Policies and Procedures

There shall be a current PICU policy and procedure manual, which is reviewed and signed by the hospital administrator, medical director, and nurse manager of the PICU. This manual shall be readily available in the PICU.

The PICU shall establish specific policies and procedures which address, but are not limited to, the following:

1. Criteria delineating the privileges granted to attending physicians, other than the pediatric intensivist.
2. Patient care, which should include nursing and respiratory management for infants, children, and adolescents.
3. Criteria for appropriate use and monitoring of equipment.
4. Administration of medication, blood, and blood products.
5. Mechanism and guidelines for bioethical review.
6. Method for infection surveillance and prevention.
7. Family visitation
8. Organ donation
9. Method for contacting appropriate clergy per the request of the parents or primary caretakers.
10. Psychosocial issues
11. Age appropriate physical environment

- 12. Transfers in and out of the PICU
- 13. Parental presence during procedures and resuscitation.
- 14. QI program
- K. Required pediatric equipment, supplies, and medications in the PICU should be easily accessible, labeled and logically organized. The PICU staff shall be appropriately oriented to the location of all items with written certification of this process. The PICU shall have a daily method of verification regarding the proper location and function of equipment and supplies. (Attachment B)

VII. NURSING SERVICES ON THE PEDIATRIC WARD:

The pediatric ward shall be staffed by qualified nurses with education, experience and demonstrated clinical competence for the area. A method of documenting clinical competency shall exist.

VIII. SPECIAL SERVICES/RESOURCES APPROPRIATE FOR PEDIATRIC PATIENTS:

The following services may be met by contractual or written transfer agreements:

- A. Critical Care Transport Team
- B. Acute burn care management
- C. Hemodialysis
- D. Peritoneal dialysis
- E. Pediatric rehabilitation
- F. Organ transplantation
- G. Home health
- H. Reimplantation
- I. Hospice

IX. SUPECTED CHILD ABUSE AND NEGELECT (SCAN):

- A. General Requirements for the SCAN Team
 - 1. The team should consist of individuals who are specialists in diagnosing and treating child abuse and neglect. The team shall consist of a coordinator, medical director, MSW and medical/nursing consultants.

2. The SCAN Team members shall assist house staff and medical staff in the evaluation of pediatric patient's who have been alleged to have been abused or neglected.
3. A SCAN Team member shall be on-call and available to all areas of the hospital twenty-four hours per day.
4. The SCAN Team shall review cases of suspected child abuse/neglect for adequacy of care reporting and follow-up.
5. A written document of the roles and responsibilities of the SCAN Team members shall exist.

B. The SCAN Team Medical Director

1. Qualifications:
 - a. Board certified in Pediatrics or Emergency Medicine
 - b. Medical experience in diagnosing and treating child abuse and neglect.
2. Responsibilities:
 - a. Ensure and monitor the SCAN Team's activities.
 - b. Serve as a member of the PMC Committee.
 - c. Review cases of suspected child abuse for adequacy of care, reporting, and follow-up
 - d. Assist the SCAN Team Coordinator in the development of education for medical staff in the evaluation of children with suspected child abuse and neglect.
 - e. Oversee scheduling to ensure a SCAN Team member is on-call.
 - f. Report to the PMC Medical Director.

C. SCAN Team Coordinator

1. Qualifications:
 - a. Must have experience and training in child abuse and neglect.
 - b. Experience in quality improvement and case review.

2. Responsibilities:
 - a. Serve as a member of the PMC committee.
 - b. Review cases of suspected child abuse and neglect in consultation with the SCAN Team Medical Director for adequacy of care, reporting, and follow-up.
 - b. Assist house-staff and medical staff in the evaluation of children who have been alleged to have been abused or neglected.
 - c. Develop educational training for medical staff in the evaluation of children with suspected child abuse and neglect.

D. Social Worker

1. Qualifications:
 - a. MSW licensed by the State of California.
 - b. Must have experience and training in child abuse and neglect.
2. Responsibilities:
 - a. Assist house-staff and medical staff in the evaluation of children alleged to have been abused or neglected.

E. SCAN Team Medical/Nursing Consultants

1. Qualifications:
 - a. Physicians shall be Board Certified in Pediatrics or Emergency Medicine with medical experience in diagnosing and treating child abuse and neglect.
 - b. Nurse Practitioner shall have experience in diagnosing and treating child abuse and neglect.
2. Responsibilities:
 - a. Provide guidance or consultation, as needed, in cases of suspected child maltreatment.

F. Sexual Abuse Examination of the Pediatric Patient

In the case of an acute sexual abuse event of a pediatric patient (defined as occurring within 72 hours) there shall be a highly specialized, in-depth

forensic examination, and interview process. If this level of examination is not available at the PMC, a transfer agreement shall exist with a "Center of Excellence" that has the capabilities of providing a comprehensive medical and psychological examination for the sexually abused pediatric patient. Additionally, the "Center of Excellence" shall have the capabilities of being mobile in the event that the pediatric patient is medically unstable for transport.

The alleged chronically sexually abused pediatric patient will require the same level of examination as in the acute phase. Therefore, it will be the responsibility of the PMC to ensure an examination is provided to the patient either at the PMC or with a follow-up appointment at the "Center of Excellence".

If the PMC cannot provide the necessary exam, a written transfer agreement shall exist between the "Center of Excellence" and the PMC.

X. PEDIATRIC INTERFACILITY TRANSPORT (PIFT) PROGRAM:

- A. The PMCs with a pediatric interfacility transport program shall have a written document of the roles and responsibilities of the PIFT members, which shall include policies and procedures.
- B. If the PMC does not have a pediatric interfacility transport program, a written agreement shall exist with agencies or other programs that will provide transportation of critically ill pediatric patients to and from a PCCC and/or PMC. However, it will be the responsibility of the PMC initiating the transport to ensure that the transfer process is promptly initiated.
- C. Affiliated Hospital Agreements
 - 1. The hospital maintaining the PIFT program shall have written agreements with referring and receiving hospitals that utilize the program.
 - 2. Agreements should specify the role and responsibilities of the transport program and the hospitals to include the following:
 - a. Agreement to transfer and receive appropriate pediatric patients when indicated.
 - b. Policies and procedures for evaluating, transferring, or receiving pediatric patients.
 - c. Responsibilities for patient care before, during and after transport.
 - d. Private physician and family involvement.

- e. Recording and transferring appropriate information and records.

XI. PMC QUALITY IMPROVEMENT PROGRAM:

- A. The PMC Quality Improvement Program shall be an organized multidisciplinary program for the purpose of improving pediatric patient outcome.
- B. The PMC QI program plan shall be developed, monitored, and reviewed annually by the PMC medical director and nurse coordinator.
- C. The PMC medical director and nurse coordinator shall be responsible for the development and review of policies and procedures regarding the QI process as they pertain to the care of the pediatric patient.
- D. The QI program shall interface with the PICU, NICU, SCAN Team, hospital wide, and Emergency Department's EDAP QI activities and if applicable PIFT program.
- E. The PMC QI review process shall include, at a minimum, a detailed review for all of the following:
 - 1. Pediatric deaths
 - 2. Resuscitations
 - 3. Pediatric transfers
 - 4. Sentinel events
 - 5. Suspected child abuse and neglect
 - 6. Readmissions to the PICU within 72 hours
- F. The PMC QI process shall include identification of the indicators, methods to collect data, results and conclusions, recognition of improvement, action(s) taken, and assessment of effectiveness of above actions and communication process for participants.

XII. DISCHARGE PLANNING:

- A. There shall be a designated coordinator for discharge planning that is responsible for ensuring the following:
 - 1. Collaboration between multidisciplinary team members and communication with the primary care physician, community agencies whose services may be required or related to the needs of the patient after discharge.
 - 2. That each patient discharged from the pediatric services shall have follow-up by a primary care physician and a program specialist, as applicable.

3. Identification of the responsibilities and involvement of the multidisciplinary team members in discharge planning activities on an ongoing basis.
4. Written discharge information shall be given to the parent(s) or primary caretaker(s) participating in the patient's care at the time of discharge and shall include, but is not limited to, the patient's diagnosis, medications, injury and illness prevention education, follow-up appointments, including community agencies and instructions on any medical treatments that will be given by the parent(s) or primary care giver(s).

XIII. POLICIES AND PROCEDURES:

The PMC committee shall establish specific policies and procedures, which addressed, but are not limited to the following:

- A. Roles and responsibilities of the SCAN Team members
- B. Assessment and reporting child abuse and neglect
- C. Poison Control Center referral and/or consultation
- D. Admissions and discharges
- E. Request for diversion of 9-1-1 traffic
- F. Do Not Resuscitate guidelines
- G. Ethics Committee
- H. Pain management guidelines
- I. Care of grieving families and caretakers
- J. Pediatric conscious sedation
- K. Referral for rehabilitation
- L. Organ donation guidelines

XIII. OUTREACH AND EDUCATION PROGRAM:

The PMC shall provide resources to institutions and individuals that do not have the opportunities to maintain current knowledge and skills.

The PMC will provide educational program to meet the needs of its medical staff, prehospital care providers, and the lay community.

XIV. ANCILLARY SERVICES:

Ancillary services shall have the capabilities and technologist appropriately trained to manage a critically ill pediatric patient. These services shall be in-house and available twenty-four hours per day.

- A. Clinical Laboratory
 - 1. Qualified clinical laboratory technologist and phlebotomist
 - 2. Comprehensive blood bank to include typing, matching, transfusion, blood components, capability to provide autologous and designated donor transfusions and adequate storage facilities.
 - 3. Coagulation studies
 - 4. Blood gas determinations
 - 5. Electrolyte and chemistry determinations
 - 6. Standard analysis of blood
 - 7. Toxicology
 - 8. Bacteriology
 - 9. Microtechnique
- B. Radiology Department
 - 1. Qualified radiology technicians
 - 2. Angiography (may be provided through a transfer agreement)
 - 3. Nuclear medicine
 - 4. Computerized Tomography
 - 5. Magnetic Resonance Imaging
- C. Pharmacy